Cotton Insect Newsletter

Letter #13 **Edisto Research & Education Center in Blackville, SC** **27 July 2006**

Newsletter Archives

Previous newsletters for 2006 are archived at http://www.clemson.edu/edisto/cotton/cotton.htm. Please distribute hard copies or electronic newsletter files to all interested, and please provide weekly input for the newsletter. Your observations and local knowledge are important – email or phone in your comments to me!

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Crop Situation

On 23 July 2006, the USDA NASS South Carolina Statistical Office reported our progress as 90% squaring, ahead of the 5-yr average of 84%. About 30% of the crop is setting bolls, behind of the 5-yr average of 37%. About 3% of the state's cotton crop was reported to be in excellent condition. The remainder was reported as 38% good, 49% fair, 9% poor, and 1% very poor. These are observed/perceived state-wide averages.

News from Above the Lakes

Dawn White, consultant, and Mitch Binarr shared their observations on fall armyworms with me late last week. See below for more information on fall armyworms. Also, Mitch observed extremely heavy egg counts in cotton fields on the NC/SC border on Monday. (Rowland, NC). Watch out for caterpillars under bloom tags.

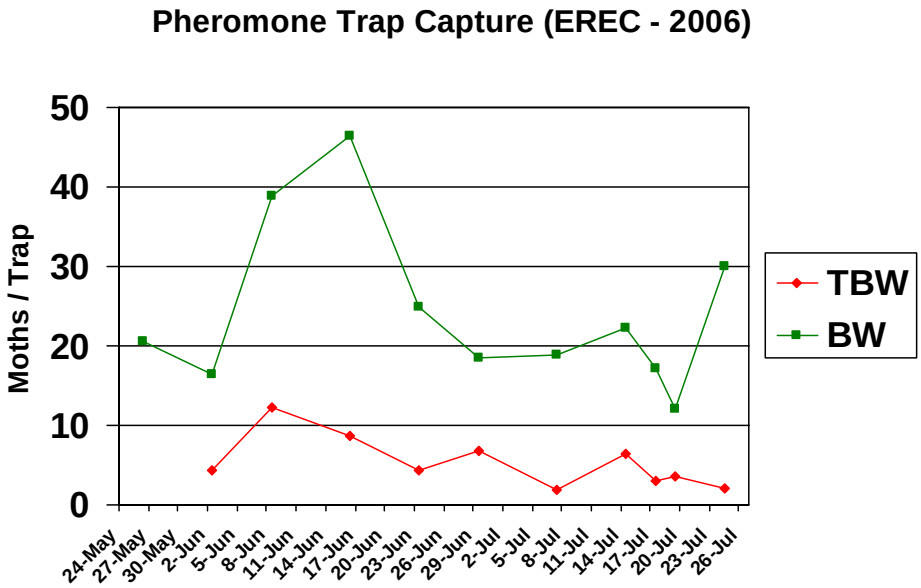
News from Below the Lakes

Dr. Mike Sullivan reported that one of his bollworm traps caught 167 moths in 4 nights this week. He caught 40 tobacco budworms in another trap during the same 4 nights.

Tobacco Budworm & Bollworm

Trap captures at the Edisto Research & Education Center near Blackville, SC are shown below through 24 July. We are definitely in another flight of bollworm. Egg counts in this area are easily in the range of 75-100+ eggs per 100 plants. Pressure from caterpillars is going to be moderate to heavy in the next few days. All cotton (1st generation Bt [Bollgard] and non-Bt) will require an insecticide application if exposed to the tremendous egg pressure we are experiencing. Once again, this is old hat for most of you – if you are dealing with Bt cotton, pyrethroids are still the products of choice for bollworm control. Do not try to cut the rates too low. If you are treating non-Bt cotton, be very aware of tobacco budworm numbers in your area. If they are low and you do not see any budworm moths in fields, it is probably safe to assume that most of the worms will be bollworm.

Control them as you would in Bt cotton – use a pyrethroid. If you have tobacco budworm in your area, you will want to consider another material with better activity on budworms (Tracer, Steward, Denim, etc.)



Fall Armyworm

There are numerous reports of fall armyworms. Eggs are deposited in masses and are covered with scales. Caterpillars are "glossy" and have a distinctive inverted "Y" on their "forehead". See pictures below.




Control is easiest when eggs and small larvae are detected. Look for the small worms in blooms and bolls. Pyrethroids at medium to high rates will control most fall armyworms during these stages. When fall armyworms attain any size at all, their feeding behavior and intrinsic reduced susceptibility to insecticides make them extremely difficult to control. They move to the bottom portion of the canopy and bore into fruit. In addition to "escaping" exposure to insecticides, larger caterpillars are difficult to control with certain insecticides. A tank-mix application of a pyrethroid plus something like Intrepid (4-6 oz) would be a good treatment for small to medium worms. Other materials are also available (Tracer, Denim, Steward, etc.) and will also do a fine job alone at a high rate or in a similar tank-mix with a pyrethroid at a lower rate. Once fall armyworms turn into large caterpillars, control failure is almost a certainty.

Stink Bugs

Stink bug numbers are picking up. We have already treated several tests at the 20% boll-injury threshold twice. So far, I have seen green and brown stink bugs in the field. Most of them have been green lately. I would go with a pyrethroid right now to control both bollworm and stink bugs with one material. Again, to check for stink bugs, pull bolls that are the largest, green bolls that are soft enough for you to press your thumb into. Those will be at least the diameter of a quarter. Check for the presence or absence of warts and/or stained lint associated with a bug puncture. If you see just one of these feeding symptoms per boll, count it as "damaged" and move on. You can look at many bolls quickly and get a good idea of what is going on with bugs in the field using this method. If you look at 50 from a field, and 10 or more are "damaged" – TREAT for bugs. If you find less than that, consider the percent boll damage and levels of other pests in the field. That leads to my next topic – additive thresholds.

Applications for Multiple Pests

Do we have additive thresholds? The answer is no, we do not have formal additive thresholds, but everyone uses them. What do I mean by "additive threshold"? For example, consider half a threshold of this insect plus half a threshold of that insect plus "some" of the other insects all equaling an application of insecticide for all three. We do not have a multitude of research data supporting that because of the difficulty in conducting such research. But, we live in the real world. Consider levels for all of the insects in the field when making a decision to treat or not. Most of the time it is a "no-brainer" – you have a threshold level of one pest and sub-threshold levels of others. Often we spray a material or tank-mix for multiple pests in this situation – the decision is easy. As you know, it gets more difficult when we reach partial thresholds for more than one insect pest. This is when experience or "art" helps science.

Need More Information?

Log on to the following webpage to view important cotton management recommendations, data, and historical cotton insect newsletters: http://www.clemson.edu/scg/ipm/cotton.html

To see cotton insect newsletters for this year, go to the following webpage to view the cotton page at the Edisto Research & Education Center. http://www.clemson.edu/edisto/cotton/cotton.htm
We will continue to update this webpage in the coming months.

Sincerely,

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Cotton Entomologist

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